

US EPA ARCHIVE DOCUMENT

**SUMMARY OF THE
ENVIRONMENTAL LABORATORY ADVISORY BOARD MEETING
Monthly Teleconference Meeting: 866-299-3188/9195415544#
October 19, 2016; 1:00 – 3:00 p.m. EDT**

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) teleconference was held on October 19, 2016. The agenda for this meeting is provided as Attachment A, a list of the participants is provided as Attachment B, and action items from the teleconference are included as Attachment C. The official certification of the minutes by the Chair or Vice-Chair is included as Attachment D.

ROLL CALL/INTRODUCTION

Dr. Henry Leibovitz, Vice-Chair of ELAB, and Ms. Lara Phelps, Designated Federal Official (DFO) of ELAB, welcomed participants and guests to the teleconference. Dr. Leibovitz chaired the teleconference in the absence of Dr. Dallas Wait, ELAB Chair. Ms. Kristen LeBaron called the roll of the Board members and guests. Following the roll call, Ms. Phelps, Ms. Lu-Ann Kleibacker (Alternate DFO) and Ms. LeBaron provided background information about themselves. The new and returning Board members also introduced themselves.

APPROVAL OF SEPTEMBER MINUTES

Dr. Leibovitz asked for comments regarding the Board's September meeting minutes. Ms. Phelps explained that only the returning ELAB members were required to approve the previous minutes. A quorum of returning Board members was present to approve the minutes. Dr. Mahesh Pujari moved to accept the minutes; Mr. Michael Flournoy seconded the motion. The returning Board members unanimously approved the September minutes; the new members abstained.

OPENING REMARKS AND UPDATES FROM THE DFO

Ms. Phelps apologized for the delay in obtaining the members' letters of appointment. All of the members have received them electronically, and their hard copies will be mailed soon. ELAB's website is in the process of being updated and will be undergoing changes during the next few weeks. Ms. Phelps also is in the process of preparing the *Federal Register* notice of all of the Board's teleconferences. The first 2017 face-to-face meeting will be held during the afternoon of January 23 in Houston, Texas; call-in information will be available for those not able to attend in person. Those members attending only the ELAB session do not have to pay the conference registration fee for the Forum on Environmental Accreditation. The second 2017 face-to-face meeting will be held on August 7 in Washington, D.C. The face-to-face meetings will be 4 hours in length.

Ms. Phelps explained that the Office of the Inspector General (OIG) has completed its periodic evaluation of EPA Federal Advisory Committees that mention science or research within their charters, including ELAB. She and Dr. Wait were interviewed during the evaluation process. During the next 6 weeks, OIG will be compiling the information and developing feedback for all

seven of the committees that the office evaluated. Ms. Phelps expects to receive ELAB's evaluation during the first part of December 2016.

TASK GROUP UPDATES ON CURRENT TOPICS

Interagency Data Quality Task Force (IDQTF)/Data Quality Objective (DQO) Process

Dr. Liebovitz summarized this effort for the incoming members, explaining that ELAB began exploring this topic because the environmental laboratory community had concerns regarding laboratory involvement in the DQO process and wondered whether the IDQTF could help laboratories be included earlier in the process. The Task Group learned that IDQTF does not have this authority because the process is dictated by the Federal Acquisition Regulation. Ultimately, the Board provided recommendations to the Agency on how to promote earlier laboratory engagement in the DQO process, including educating prime contractors. The IDQTF also plans to meet to discuss this issue. ELAB has received a response letter from EPA indicating that the topic is under discussion at the Agency.

Methods Harmonization

In the absence of Dr. Wait, Dr. Pujari summarized this task for the incoming members. Because EPA methods may be similar but have different quality assurance/quality control (QA/QC) criteria, the Board has recommended that the Agency harmonize QA/QC criteria among methods. ELAB provided specific suggestions for six different method categories: liquid chromatography-tandem mass spectrometry for semivolatile compounds, chlorinated herbicide gas chromatography, ion chromatography, total organic carbons, metals by inductively coupled plasma, and metals by inductively coupled plasma-mass spectrometry. These methods were examined across wastewater, drinking water and solid waste matrices.

Dr. Leibovitz summarized the recent letter that the Board received from the Forum on Environmental Measurements (FEM) in response to the recommendations, which Dr. Wait will forward to the ELAB members prior to the November teleconference. The letter thanks the Board for bringing the issue to the attention of the Agency, which considers methods harmonization a worthwhile effort that it will pursue.

In-Line and On-Line Monitoring

Mr. Flournoy explained that he planned to schedule a Task Group teleconference prior to the Board's November meeting. ELAB originally was tasked with exploring this issue because the environmental laboratory community would like to use in-line and on-line monitoring for regulatory and compliance purposes. Because the initial topic was complicated and broad, the Task Group determined that it would focus on the QA/QC aspects of the issue.

Just prior to the August face-to-face meeting, the Task Group concluded that the Agency needed to re-define its expectations and needs from this effort. The Task Group is waiting for this redefinition from EPA. The Agency is interested in allowing more monitors to be used but must wrestle with compliance challenges. Whether the QA/QC will apply to a batch or system also must be determined. The Task Group is engaging those with expertise and experience to help the

members understand the problem and ensure that the ultimate results are helpful rather than challenging for environmental laboratories.

Dr. Leibovitz shared his observations from the National Environmental Monitoring Conference (NEMC), which included many sessions about in-line and on-line sensors. He may be interested in joining the Task Group and encouraged those with expertise to join as well.

Dr. Brian Buckley explained that the New Jersey Department of Environmental Protection had appointed a science advisory board, on which he served, to address an analogous problem. That group determined that, in addition to the QA/QC issue, how continuous data are interpreted in comparison to a sample data time point also is an area of concern. Dr. Buckley and Ms. Debra Waller volunteered to serve on the Task Group.

Ms. Sharon Mertens hoped that some ELAB members were able to attend Mr. William Lipps' (Shimadzu Scientific Instruments, Inc.) presentation at NEMC because it would be very helpful for this Task Group. She believes that his presentation is posted online in the conference proceedings.

Selected Ion Monitoring (SIM)

Dr. Michael Delaney explained that the Task Group had developed minimum SIM criteria and presented them at the Board's August 2016 face-to-face meeting. Mr. Lee Wolf (ALS Environmental) has since provided comments that Dr. Delaney would like to include in the current criteria. The Task Group plans to meet again, hopefully with Mr. Wolf, to integrate his suggestions into the SIM criteria. Mr. Wolf provided an overview of the key comments that he had submitted:

- Clarification about which criteria should be used for mass spectroscopy tuning.
- Number of scan descriptors in relationship to dwell times.
- The lack of strong secondary or tertiary ions to make a quantitative judgment about compound presence.
- Sensitivity and associated criteria.

Mr. Flournoy noted that EPA is developing a polychlorinated biphenyl congener method that most likely will be a SIM method; hopefully, a draft of the method will be shared with ELAB. Dr. Pujari provided additional information about this method, which Mr. Adrian Hanley (EPA) is developing with a team that includes Dr. Pujari. The only current method is highly complicated, and most laboratories cannot procure the necessary instrument. The team has chosen to develop a SIM method that focuses on approximately 45 of the most common congeners. The plan is for ELAB to review the method.

Dr. Keri Hornbuckle is very interested in hearing about the method and providing input once it is developed. Mr. Elan Rieser added that his laboratory had been considering incorporating Method 1668, but he had recognized what a complicated method it was and strongly advised against it. Dr. Pujari agreed that the maintenance of the technology was not worth the financial investment; hopefully, the new method will solve these problems. Mr. Flournoy commented that fitness for

purpose, the protection of human health, and the ability to reliably detect compounds are important. Dr. Pujari said that the new method would not replace Method 1668.

Whole Effluent Toxicity (WET) Testing

In Dr. Wait's absence, Dr. Liebovitz explained that The NELAC Institute's WET Expert Committee developed a white paper and requested that ELAB endorse the paper. The committee had concerns regarding proficiency tests (PTs) and how results are reported by laboratories. Laboratories report based on work plans rather than a standard set of proficiency instructions and conditions. Laboratories are reluctant to change their current procedures, but concerns exist about laboratories performing PTs differently. The WET Expert Committee recommends that a standard set of instructions be used.

During the Board's August face-to-face meeting, a comment was made that WET testing requirements may vary among states and EPA regions. An approach that includes the test of significant toxicity (TST) may be useful. A second approach would be for all laboratories to perform testing with the same methods to reduce variability and help the results be more comparable.

The Board formed a Task Group, which included external WET experts, that reviewed the paper and developed two recommendations. One recommendation is to standardize the test methods used in performing the Discharge Monitoring Report—Quality Assurance and PTs. The second recommendation is to standardize the chronic endpoints used in PTs. The Task Group is considering the comments received at the face-to-face meeting, and the Board has not yet voted to approve the Task Group's recommendations.

Dr. Pujari explained that the Task Group will include the TST in future discussions. Dr. Kim Anderson has expertise in this area and volunteered to serve on the Task Group. Ms. Waller's supervisor, who would like to submit comments to the Task Group, also has expertise.

Cyanide Methodology

Dr. Delaney explained that he had presented on cyanide drinking water testing and associated problems with false positives during the August face-to-face meeting. At the time, ELAB decided to establish a Task Group after the new Board had convened. Dr. Delaney's proposed charge to the Task Group is to consider how EPA can improve the cyanide methodology situation so that public water supplies are not reporting false positives to their regulatory agencies nor including them in their Consumer Confidence Reports.

Dr. Delaney made a motion, which Dr. Liebovitz seconded, that ELAB create a Task Group using the following minimal charge that he had provided to the ELAB members via email prior to the teleconference:

“Published studies have shown that EPA-required drinking preservation, interference treatments and analysis methods for cyanide in drinking water are prone to false positives. This puts public water suppliers and their laboratories in a bind because even the false positives must be disclosed in the annual Consumer Confidence Reports. This Task Group is directed to review the pertinent information and formulate a recommendation to EPA that will help laboratories avoid the

requirement to report incorrect results. A key aspect of this assignment is to examine sample preservation and interference treatment techniques.”

A Board member asked whether the Board could begin with a focus on drinking water and then consider nonpotable water testing and solid and chemical matrices. Dr. Delaney was willing to broaden the effort in this manner, and Dr. Leibovitz agreed it would be useful.

The Board unanimously approved the motion. Ms. Waller and Dr. Leibovitz volunteered to serve on the Task Group, which Dr. Delaney will lead.

NEW TOPICS/ISSUES FOR CONSIDERATION

Dr. Leibovitz explained that a participant at the August face-to-face meeting had raised the issue of conflicting information and approaches to using gas chromatography/mass spectrometry (GC/MS) spectral libraries. Dr. Pujari added that the heart of this issue is that the current libraries are based on quadrupole technology, but technologies have advanced since the time the libraries were established, and these new technologies need to be considered. ELAB had determined to wait until the new Board convened to determine whether to pursue this topic.

Dr. Buckley commented that his laboratory has been performing GC/MS using the quadrupole library against ion traps and has not encountered many discrepancies. Laboratories must perform sufficient QA/QC when deciding to use this approach, but the differences are much less than most individuals realize. It is a question of normalization of one spectral library type to another. Dr. Pujari commented that it is necessary to adjust instruments to be comparable with the quadrupole libraries. The Board will determine during the next meeting whether it will form a Task Group to examine GC/MS spectral libraries.

Mr. Flournoy said that he has been reviewing Method 200.8 and may review Method 200.7 through the American Council of Independent Laboratories and its subsidiary, the Independent Laboratories Institute, which are working with EPA on the effort. The group is examining microwave and interference-related technologies for inclusion. He may bring this issue to the Board in the future, as potential opportunities for methods harmonization are important to pursue. Dr. Leibovitz said that a previous effort by the Board had included these methods, and they could be added to the current methods harmonization effort if the FEM would like more input on them.

Dr. Leibovitz reminded the members that they can introduce new topics through email as well as during the monthly meetings.

WRAP-UP/SUMMARY OF ACTION ITEMS

Ms. LeBaron reviewed the action items identified during the meeting, which are included as Attachment C.

CLOSING REMARKS/ADJOURNMENT

Mr. Flournoy moved to adjourn the meeting; Dr. Delaney seconded the motion. The Board unanimously approved the motion to adjourn the meeting at 2:42 p.m.

Attachment A

AGENDA
ENVIRONMENTAL LABORATORY ADVISORY BOARD
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October 19, 2016; 1:00 – 3:00 p.m. EDT

Roll Call/Introduction of Guests	Wait/LeBaron
Approval of Prior Minutes	Wait
Opening Remarks and Updates From the DFO	Phelps
Updates on Current Topics	
Interagency Data Quality Task Force/Data Quality Objective Process: Leibovitz	
Methods Harmonization: Wait	
In-Line and On-Line Monitoring: Flournoy	
Selected Ion Monitoring: Delaney	
Whole Effluent Toxicity Testing: Carvajal	
Cyanide Methodology: Delaney	
New Topics/Issues for Consideration	Wait
Gas Chromatography/Mass Spectrometry Spectral Libraries	
Wrap-Up/Summary of Action Items	Wait/LeBaron
Closing Remarks/Adjournment	Phelps/Wait

Attachment B**PARTICIPANTS LIST****Board Members**

Attendance (Y/N)	Name	Affiliation
N	Dr. A. Dallas Wait (Chair)	Gradient Representing: Consumer Products Industry
Y	Dr. Henry Leibovitz (Vice-Chair)	Rhode Island State Health Laboratories Representing: Association of Public Health Laboratories
Y	Ms. Lara Phelps (DFO)	U.S. Environmental Protection Agency Representing: EPA
Y	Ms. Lu-Ann Kleibacker (Alternate DFO)	U.S. Environmental Protection Agency Representing: EPA
Y	Dr. Kim Anderson	Oregon State University Representing: Academia—Oregon State University
Y	Dr. Brian Buckley	Rutgers Environmental and Occupational Health Sciences Institute Representing: Academia and Laboratory—Rutgers
Y	Ms. Patricia (Patty) Carvajal	San Antonio River Authority Representing: Watershed/Restoration
Y	Dr. Michael (Mike) Delaney	Massachusetts Water Resources Authority Representing: Massachusetts Water Resources Authority
Y	Mr. Michael Flournoy	Eurofins Environment Testing USA Representing: American Council of Independent Laboratories
Y	Dr. Keri Hornbuckle	The University of Iowa Representing: Academia—The University of Iowa
Y	Dr. Deyuan (Kitty) Kong	Chevron Energy Technology Company Representing: Chevron
Y	Mr. Jeff Loewe	NiSource, Inc. Representing: Industry—NiSource, Inc.
Y	Mr. Brad Meadows	BSK Associates Representing: Commercial Laboratory—BSK Associates
Y	Ms. Sharon Mertens	Milwaukee Metropolitan Sewerage District Representing: The NELAC Institute
Y	Dr. Mahesh Pujari	City of Los Angeles Representing: National Association of Clean Water Agencies
Y	Mr. Elan Rieser	Con Edison Representing: Utility Water Act Group (UWAG)
Y	Ms. Debra Waller	New Jersey Department of Environmental Protection (NJDEP) Representing: State Government—NJDEP

PARTICIPANTS LIST (CONT)**Contractors and Guests**

Attendance (Y/N)	Name	Affiliation
Y	Ms. Kristen LeBaron (Contractor)	The Scientific Consulting Group, Inc. (SCG)
Y	Mr. Dan White (Guest)	Minnesota Pollution Control Agency
Y	Mr. Lee Wolf (Guest)	ALS Environmental

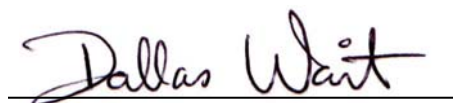
Attachment C

ACTION ITEMS

1. Ms. LeBaron will finalize the September meeting minutes and send them to Ms. Phelps via email.
2. Dr. Wait will forward the FEM's methods harmonization response letter to ELAB members prior to the November teleconference.
3. The Board will establish a Task Group to examine the issue of false cyanide detects and drinking water reporting. Dr. Delaney will lead the Task Group, which currently includes Dr. Leibovitz and Ms. Waller.
4. ELAB will determine whether to address the issue of GC/MS spectral libraries during its November meeting.

Attachment D

I hereby certify that this is the final version of the minutes for the Environmental Laboratory Advisory Board Meeting held on October 19, 2016.

A handwritten signature in dark ink, reading "Dallas Wait", is written over a horizontal line.

Signature, Chair

Dr. Dallas Wait

Print Name, Chair